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PTO/SB/05 (08-00)

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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**UTILITY  
PATENT APPLICATION  
TRANSMITTAL**

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No.

MTB26US

First Inventor

Kia Silverbrook

Title

THERMAL INK JET PRINTHEAD WITH HEATER  
ELEMENT THAT FORMS SYMMETRICAL BUBBLES

Express Mail Label No.

**APPLICATION ELEMENTS**

See MPEP chapter 600 concerning utility patent application contents.

1. ☒ Fee Transmittal Form (e.g., PTO/SB/17)  
(Submit an original and a duplicate for fee processing)
2. ☐ Applicant claims small entity status.  
See 37 CFR 1.27.
3. ☒ Specification [Total Pages 59]  
(preferred arrangement set forth below)
- Descriptive title of the invention
  - Cross Reference to Related Applications
  - Statement Regarding Fed sponsored R & D
  - Reference to sequence listing, a table, or a computer program listing appendix
  - Background of the Invention
  - Brief Summary of the Invention
  - Brief Description of the Drawings (if filed)
  - Detailed Description
  - Claim(s)
  - Abstract of the Disclosure
4. ☒ Drawing(s) (35 U.S.C. 113) [Total Sheets 66]
5. Oath or Declaration [Total Pages 2]
- a. ☒ Newly executed (original or copy)
- b. ☐ Copy from a prior application (37 CFR 1.63 (d))  
(for continuation/divisional with Box 17 completed)
- i. ☐ **DELETION OF INVENTOR(S)**  
Signed statement attached deleting inventor(s)  
named in the prior application, see 37 CFR  
1.63(d)(2) and 1.33(b).
6. ☐ Application Data Sheet. See 37 CFR 1.76

**ADDRESS TO:**Assistant Commissioner for Patents  
Box Patent Application  
Washington, DC 20231

7. ☐ CD-ROM or CD-R in duplicate, large table or  
Computer Program (Appendix)
8. Nucleotide and/or Amino Acid Sequence Submission  
(if applicable, all necessary)
- a. ☐ Computer Readable Form (CRF)
- b. Specification Sequence Listing on:
- i. ☐ CD-ROM or CD-R (2 copies); or
- ii. ☐ paper
- c. ☐ Statements verifying identity of above copies

**ACCOMPANYING APPLICATION PARTS**

9. ☒ Assignment Papers (cover sheet & document(s))
10. ☐ 37 CFR 3.73(b) Statement ☐ Power of  
(when there is an assignee) Attorney
11. ☐ English Translation Document (if applicable)
12. ☐ Information Disclosure ☐ Copies of IDS  
Statement (IDS)/PTO-1449 Citations
13. ☐ Preliminary Amendment
14. ☐ Return Receipt Postcard (MPEP 503)  
(Should be specifically itemized)
15. ☐ Certified Copy of Priority Document(s)  
(if foreign priority is claimed)
16. ☐ Other: .....

17. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76:

☐ Continuation ☐ Divisional ☒ Continuation-in-part (CIP)of prior application No.: 10 / 302,274

Prior application information:

Examiner

Group / Art Unit: 2853

For CONTINUATION OR DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

**18. CORRESPONDENCE ADDRESS**☒ Customer Number or Bar Code Label24011or ☐ Correspondence address below

(Insert Customer No. or Attach bar code label here)

Name

KIA SILVERBROOK

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Name (Print/Type)

KIA SILVERBROOK

Registration No. (Attorney/Agent)

Signature



Date January 28, 2004

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Box Patent Application, Washington, DC 20231.

17531 U.S. PTO  
10/773200

16998 U.S. PTO  
020904

PTO/SB/17 (10-03)

Approved for use through 7/31/2006. OMB 0651-0032  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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# FEE TRANSMITTAL for FY 2004

Effective 10/01/2003. Patent fees are subject to annual revision.

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$ ) 1,422.00

Complete if Known

Application Number	
Filing Date	
First Named Inventor	Kia Silverbrook
Examiner Name	
Art Unit	
Attorney Docket No.	MTB26US

## METHOD OF PAYMENT (check all that apply)

☒ Check ☐ Credit card ☐ Money Order ☐ Other ☐ None

☐ Deposit Account:

Deposit Account Number	
Deposit Account Name	

The Director is authorized to: (check all that apply)

☐ Charge fee(s) indicated below ☐ Credit any overpayments

☐ Charge any additional fee(s) or any underpayment of fee(s)

☐ Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.

## FEE CALCULATION

### 1. BASIC FILING FEE

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
1001 770	2001 385	Utility filing fee	770.00
1002 3 0	2002 1	Design filing fee	
1003 5 0	2003 265	Plant filing fee	
1004 7 0	2004 3 5	Reissue filing fee	
1005 160	2005 80	Provisional filing fee	
SUBTOTAL (1)			(\$ ) 770.00

### 2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

Total Claims	Extra Claims	Fee from below	Fee Paid
54	-20** = 34	X 18	= 612
3	-3** =	X	= 0
Multiple Dependent			

<u>Large Entity</u>		<u>Small Entity</u>		<u>Fee Description</u>
Fee Code	Fee (\$)	Fee Code	Fee (\$)	
1202	18	2202	9	Claims in excess of 20
1201	8	2201	4	Independent claims in excess of 3
1203	2 0	2203	145	Multiple dependent claim, if not paid
1204	8	2204	4	** Reissue independent claims over original patent
1205	18	2205	9	** Reissue claims in excess of 20 and over original patent

\*\*or number previously paid, if greater; For Reissues, see above

## FEE CALCULATION (continued)

### 3. ADDITIONAL FEES

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
1051 130	2051 65	Surcharge - late filing fee or oath	
1052 50	2052 25	Surcharge - late provisional filing fee or cover sheet	
1053 130	1053 130	Non-English specification	
1812 2,520	1812 2,520	For filing a request for <i>ex parte</i> reexamination	
1804 920*	1804 920*	Requesting publication of SIR prior to Examiner action	
1805 1,840*	1805 1,840*	Requesting publication of SIR after Examiner action	
1251 110	2251 55	Extension for reply within first month	
1252 420	2252 210	Extension for reply within second month	
1253 950	2253 475	Extension for reply within third month	
1254 1,480	2254 740	Extension for reply within fourth month	
1255 2,010	2255 1,005	Extension for reply within fifth month	
1401 330	2401 165	Notice of Appeal	
1402 330	2402 165	Filing a brief in support of an appeal	
1403 290	2403 145	Request for oral hearing	
1451 1,510	1451 1,510	Petition to institute a public use proceeding	
1452 110	2452 55	Petition to revive - unavoidable	
1453 1,330	2453 665	Petition to revive - unintentional	
1501 1,330	2501 665	Utility issue fee (or reissue)	
1502 480	2502 240	Design issue fee	
1503 640	2503 320	Plant issue fee	
1460 130	1460 130	Petitions to the Commissioner	
1807 50	1807 50	Processing fee under 37 CFR 1.17(q)	
1806 180	1806 180	Submission of Information Disclosure Stmt	
8021 40	8021 40	Recording each patent assignment per property (times number of properties)	40.00
1809 770	2809 385	Filing a submission after final rejection (37 CFR 1.129(a))	
1810 770	2810 385	For each additional invention to be examined (37 CFR 1.129(b))	
1801 770	2801 385	Request for Continued Examination (RCE)	
1802 900	1802 900	Request for expedited examination of a design application	
Other fee (specify)			
*Reduced by Basic Filing Fee Paid			
SUBTOTAL (3)			(\$ ) 40.00

## SUBMITTED BY

Name (Print/Type)	Kia Silverbrook	Registration No. (Attorney/Agent)		Telephone	612 98186633
Signature		Date	January 28, 2004		

**WARNING:** Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS.

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If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



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**COPY**

February 6, 2004

Commissioner of Patents and Trademarks  
Washington DC 20231  
USA

Dear Sir

**22 New United States Patent Applications**  
**Assignee: Silverbrook Research Pty Ltd**

This letter accompanies 22 new patent applications.

**One bank draft** for the total amount of US\$31,094 is enclosed to cover filing and assignment fees for each of the 22 applications. Also attached is a list giving details of each application.

We look forward to receiving filing receipts in due course.

If you need to contact us in relation to the applications, please email my assistant, Leonie News at [leonie.news@silverbrookresearch.com](mailto:leonie.news@silverbrookresearch.com) or by fax to +61 2 9555 7762.

Yours faithfully

Kia Silverbrook  
Silverbrook Research Pty Ltd  
[kia.Silverbrook@silverbrookresearch.com](mailto:kia.Silverbrook@silverbrookresearch.com)

	DOCKET NO	TITLE	INVENTORS	AMOUNT US\$
1	MTB15	Thermal Ink Jet Printhead with Unintentional Boiling Prevention	Kia Silverbrook	1422
2	MTB16	Thermal Ink Jet Printhead with Small Nozzle Dimensions	Kia Silverbrook	1422
3	MTB18	Thermal Ink Jet Printhead with Bubble Collapse Point Void	Kia Silverbrook	1422
4	MTB19	Thermal Ink Jet Printhead with Reduced Pressure Transients	Kia Silverbrook	1422
5	MTB20	Thermal Ink Jet Printhead with Laterally Enclosed Heater Element	Kia Silverbrook	1422
6	MTB21	Thermal Ink Jet Printhead Assembly with Laminated Structure for the Alignment and Funneling of Ink	Kia Silverbrook	1422
7	MTB22	Thermal Ink Jet Printhead with Drive Circuitry on Opposing Sides of Chamber	Kia Silverbrook	1422
8	MTB23	Thermal Ink Jet Printhead with Suspended Heater Element Spaced from Chamber Walls	Kia Silverbrook	1422
9	MTB24	Thermal Ink Jet Printhead with Drive Circuitry Offset From Heater Elements	Kia Silverbrook	1422
10	MTB25	Thermal Ink Jet Printhead with Heater Element Having Non-Uniform Resistance	Kia Silverbrook	1422
11	MTB26	Thermal Ink Jet Printhead with Heater Element that Forms Symmetrical Bubbles	Kia Silverbrook	1422
12	MTB27	Thermal Ink Jet Printhead with Wide Heater Element	Kia Silverbrook	1422
13	MTB28	Thermal Ink Jet Printhead with Heater Element Mounted to Opposing Sides of the Chamber	Kia Silverbrook	1422
14	MTB29	Thermal Ink Jet Printhead with Heater Element Symmetrical About Nozzle Axis	Kia Silverbrook	1422
15	MTB30	Thermal Ink Jet Printhead with Bubble Nucleation Offset from Ink Supply	Kia Silverbrook	1422
16	MTB31	Thermal Ink Jet Printhead with Bubble Nucleation Laterally Offset from Nozzle	Kia Silverbrook	1422
17	MTB32	Thermal Ink Jet Printhead with Low Resistance Connection to Heater	Kia Silverbrook	1422
18	MTB34	Thermal Ink Jet printhead With Non-Buckling Heater Element	Kia Silverbrook	1422
19	MTB35	Thermal Ink Jet PRInthead with Rotatable Heater Element	Kia Silverbrook	1422
20	MTB36	Thermal Ink Jet Printhead with Heater Element Current Flow Around Nozzle Axis	Kia Silverbrook	1422
21	MTB17	Thermal Ink Jet Printhead with Bubble Formation Surrounding Heater Element	Kia Silverbrook, AJ North & GJ McAvoy	1,502
22	MTB33	Inkjet Printhead with CMOS Drive Circuitry Close to Ink Supply Passage	Kia Silverbrook	1,152
			TOTAL	31,094